

Industrial Usage of NUFO Facilities: Where do we stand now?

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June 8, 2010

NUFO Annual Meeting

Overview/Background

- Report from the June 11, 2009 NUFO industrial usage workshop included recommendations for sponsors, facilities, and NUFO
- Five issues identified:
 - *Intellectual property agreements vary among user facilities in the United States and worldwide*
 - *There is limited awareness of capabilities and access models for user facilities*
 - *It takes too long to access a user facility for a time-sensitive industrial experiment.*
 - *Industrial users typically need more assistance than other categories of users in proposal writing, sample preparation, and experiment design and analysis*
 - *Facility-specific barriers inhibit the effective user of user facilities by industry*
- Benchmarking study conducted in May 2010 [*will be posted on NUFO Web site soon*]

So what's happened since last year?

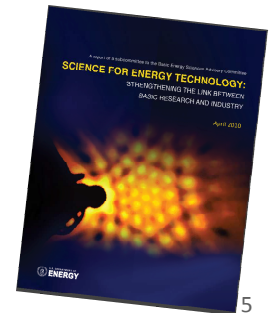
- Overall: Progress is definitely being made!
- Sponsors (specifically DOE-BES) are looking at benefits of industrial research (applied uses of energy), collaboration, and technology transfer.
- Facilities are making some changes
- NUFO has also responded.

Sponsors: Recommendations

- Survey industrial users about concerns; work with user facilities to respond appropriately
- Accept a variety of approaches by user facilities to accommodate industry access (potentially different review approaches or measures of success for industrial involvement)
- Develop a facility access model for industrial research to enable site and facility access within industry timeframes
- Include metrics for facility reviews that recognize the value of industrial research

What Sponsors Have Done...

- DOE Office of Basic Energy Sciences (includes 17 of NUFO facilities)
 - NUFO report sent to BES Director Harriet Kung and OS Deputy Director Pat Dehmer (at their request) in July 2009
 - In early 2010, William Brinkman (Director DOE OS) charged BES Advisory Committee to (among other things) identify how the suite of BES-supported and –managed scientific user facilities can impact basic and **APPLIED** research on energy.
 - Report to be released in August: *Science for Energy Technology: Strengthening the Link between Basic Science and Industry*
- Draft issues/recommendations from the report mirror NUFO issues/recommendations



Excerpt from Committee Presentation to BESAC in March 2010

- Facilities could more fully support clean energy science and specifically industrial energy science
- Proposal review *[suggested considerations for reviews]*
 - Solving basic science roadblocks to clean energy technology
 - Uniqueness of facility for proposed experiment
 - Industrial scientists on review
- Quick response projects, for academic, national lab and industry users
- Reach out to industry
 - Seek industrial advice – members of advisory boards
 - Facility directors and senior managers seek industry interaction
 - Portal for industry that attracts users, provides special support
 - Incentivize support staff to engage industry users



Facilities: What has happened?

- Sixteen separate recommendations made to deal with the five issues
- NUFO Benchmarking Study
 - 11 questions asked to assess facility interactions with industrial users vis a vis the NUFO report recommendations
 - Of the 36 NUFO facilities, 22 responded.
 - At least 14 facilities responded that no industrial or proprietary research is conducted.
- Positive Steps:
 - Three facilities now have dedicated industrial liaisons (two more in process)
 - Two have links for industry on home Web page
 - Nine send staff to industrially relevant conferences
 - One produces industrial outreach materials
 - Three have provisions for expedited access/special access modes for industry
 - Two have industrial members on some proposal review panels



Facilities: What has happened? (cont'd.)

- Still Needed to Address
 - Prepayment for all proprietary time
 - Specific access models/proposal review criteria/expedited scheduling
(needed for most user facilities)
 - Incentives to attract industrial users
 - Industrial representatives on proposal review panels
 - Incentives for staff



NUFO: What we've done

- Agreed to benchmark intellectual property agreements – at both domestic and international user facilities to assess needs for change to accommodate industry
 - Results presented on June 7
- Collected list of key meetings, society journals, and trade organizations for industrial outreach
- Collected list of R&D100 Awards resulting from research at user facilities to post on NUFO Home Page
- Requested links to NUFO be posted on user facility home pages
 - A few facilities now have this link posted

NUFO: What we still need to do

- Produce NUFO brochures targeted to industry (*increase awareness of capabilities*)
- Create a specific Web link for Industry on NUFO Home Page (*increase awareness of capabilities*)
- Benchmark proposal submission, review, allocation, scheduling to identify best practices for industry (*takes too long to access facility for time-sensitive industrial experiments*)
- Include information and software tools developed by facilities for industry on NUFO Web site (*provide additional assistance to industrial users*)
- Identify facility-specific barriers and bring them to the attention of facilities and larger user community

Bottom Line

- Progress is being made, BUT we need to keep the momentum going!
- NUFO needs to work more closely with user administrators on facility recommendations.
- NUFO has recommendations still to address.
- NUFO needs to continue to identify and report issues of concern to sponsors.